same phenomenon; for Sir W. Flower showed, and Mr. Thomas confirmed his discovery, that only one tooth, according to Mr. Thomas the fourth premolar, is replaced in that group. But even the purely monophyodont dentition of the Toothed Whales is a more apparent than real contrast to the diphyodout dentition elsewhere prevalent. An investigation of the embryos of various 'Toothed Whales by Dr. Kiikenthal and by Dr. Leche has brought to light the highly important fact that two dentitions are present, but that one only comes to maturity; from this fact obviously follows the interesting question :—To which of the two dentitions of more normal Mammalia does the monophyodont dentition of the Whales and Marsupials belong ? To this question a clear answer is fortunately possible. As has been pointed out in the fore-going sketch of tooth development, and has been illustrated in the figures, the milk teeth develop as lateral outgrowths of the common enamel germ, while the permanent teeth arise from the end of the same band of tissue. This fact enables it to be stated apparently beyond a doubt that in the Whales and in the Marsupials it is the milk dentition which is the only one to arrive at maturity. Thus the earlier theoretical conclusion that the Marsupial dentition " is a secondary dentition with only one tooth of the primary set left," is proved on embryological grounds to be untrue. But there are other inonophyodont animals than those already mentioned.[1] *Orycteropus,* the Cape Anteater, is an example. Mr. Thomas has lately discovered that in this Eden-tate there is a set of minute though calcified milk teeth which probably never cut the gum; here we have a different sort of monophyodontism, in which the teeth belong to the second and not to the first set. Between the latter condition and the diphyodont state are intermediate stages. Thus **in** the Sea Lions the milk teeth are developed but disappear early, probably before the animal is born.

In the typical diphyodont" dentition, such as is

exhibited for example in Man and the vast majority of mammals, the milk teeth eventually completely disappear and are entirely replaced by the permanent set of teeth, with the exception, of course, of the molars, which though they are developed late belong to the milk series.

[1] **It would T>e of the greatest interest in relation to this and many oth«r problems to ascertain the precise meaning of tlie monopltyodont dentition of *Ornithorhyiicfcua.***